



**Town of Arlington, Massachusetts**  
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## Minutes 09/13/2011

### Tri-Community Working Group Meeting Minutes -- 9/13/2011

The Tuesday, September 13, 2011 meeting of the Tri-Community Working Group for Flooding Issues was held at 6:00 pm, in the second-floor meeting room of Arlington Town Hall.

Attending:

Peter Castanino  
Wayne Chouinard  
Elsie C. Fiore  
Roger Frymire  
Richard Lacroix  
Martha Moore  
Stephen Revilak  
Clarissa Rowe  
Catherine Daly-Woodbury

### Approval of July 12th Meeting Minutes

The July 12, 2011 meeting minutes were approved.

### MWRA Training Seminar

On Wednesday, Sept. 21, 2011, the Mystic River Watershed Association will host a training seminar on designing green development sites and stormwater retrofitting for low-impact development. More information is available from [http://mysticriver.org/storage/pdfs/STS\\_flyer\\_040411%20-MyRWA.pdf](http://mysticriver.org/storage/pdfs/STS_flyer_040411%20-MyRWA.pdf).

### Monitoring Data from Alewife Brook, Little River, and Little Pond

On August 21st, Roger Frymire took a kayak tour of the Mystic River, Alewife Brook, Little River, and Little Pond. Roger's kayak was equipped with a water quality meter that captured water quality and GPS readings every five seconds. Roger presented some of the data that he collected.

**Temperature.** There was a notable drop in temperature between the Mystic River and Alewife Brook, perhaps due to tree shade along the Alewife. Cooler temperatures were measured in Wellington Brook and the Winn Brook Culvert. The warmest temperatures occurred in the north end of Little Pond, which is shallow and sunny.

**Salinity.** A salinity of 0.6 millisiemens was measured in the Mystic River, increasing to ~ 1.0 millisiemens in the Alewife Brook. Higher salinity in the Alewife Brook may be due to road salt runoff. Lower salinities were measured in Wellington Brook and the Winn Brook Culvert.

**Dissolved Oxygen.** State water quality standards specify dissolved oxygen levels of 5.0 ppm or less. The Mystic River measured 7.0 ppm (falling short of state water quality standards). The Alewife Brook measured less than 5.0 ppm of dissolved oxygen (within state water quality standards).

**Cyanobacteria.** The Alewife Brook and Little Pond contained cyanobacteria counts in excess of the 70,000 cells/ml state limit, and Roger notified the State Department of Health regarding Little Pond's high cyanobacteria counts.

Three factors contribute to high cyanobacteria counts: warm temperatures, high levels of phosphorous, and stagnation/low water flow. Some cyanobacteria produce toxins that can build up in the body over time. These toxins can enter the body through ingestion, or through inhalation.

Reducing phosphorous levels will reduce cyanobacteria populations; alum treatments are one way to accomplish this. Alum treatments need to be applied for several consecutive years, since plants die, sink to the bottom, and release phosphorous. Dredging is also an effective way to combat cyanobacteria, but it is an expensive approach. Next year, Roger plans to monitor cyanobacteria levels in the deep areas of Spy Pond.

#### **Drainage Improvements and Cambridge Park-area Wetland Construction Project**

Catherine Daly-Woodbury gave a presentation on drainage improvements in west Cambridge, and wetland construction near Cambridge Park Drive. This \$16MM project is a joint effort between the city of Cambridge and the MWRA, with the goal of reducing CSO discharges into the Mystic and Charles River systems.

There are 7 CSO outlets along the Alewife Brook and Little River: one from Somerville, one from the MWRA, and five from Cambridge. One of the five Cambridge outlets (CAM400, near the intersection of Mass. Ave and the Alewife Brook Parkway) was completely closed in March 2011.

The next phase is a three-acre stormwater outfall and wetland project, just off Acorn Park Drive in Cambridge.

Separated stormwater will flow from west Cambridge into this wetland, and from the wetland into Little River. This wetland will incorporate water treatment swales. The wetland project includes recreational features, such as multi-use paths, boardwalks, and an amphitheater area. Cambridge expects to plant 3,800 new upland plants and 115,000 wetland plants.

After construction, the City of Cambridge will maintain the wetland features. The DCR will maintain the recreational features.

Construction will begin in the Fall of 2011 and should be complete by April 2013. More information can be found on the Cambridge DPW's web site, <http://www.cambridgema.gov/theworks/cityprojects.aspx> (look for "Cambridge Park Drive Area Drainage Improvements and Stormwater Wetland Project").

A future project will entail closing the CAM004 CSO outlet, which has the highest rate of CSO discharge. When all of Cambridge's stormwater and sewer separation improvements are finished, the city expects the number of annual CSO activations to drop from 63 to 7.

Elsie Fiore voiced objections to the Cambridge Park area projects: they will provide stormwater drainage for West Cambridge, but fail to eliminate all CSO flows into Arlington. Ms. Fiore expressed concern that these changes could aggravate CSO overflows in east Arlington.

#### **Other Business**

Elsie Fiore noted that Winchester is beginning the first phase of their Aberjona River work, widening sections of the river.

Meeting adjourned at 7:25 pm.